

## ABSTRACT:

The present invention relates to a novel recombinant antibody having a binding activity to 2,3,4,7,8-pentachlorodibenzofuran (2,3,4,7,8-PeCDF), a gene encoding its amino acid sequence, a vector incorporating said gene, a transformant transformed with said vector, a process for preparing said recombinant antibody, and methods for immunologically capturing and determining 2,3,4,7,8-PeCDF using said recombinant antibody. Using the recombinant antibody according to the present invention, it is possible to capture and determine dioxins, in particular, 2,3,4,7,8-PeCDF by an immunological technique in a rapid, convenient, and highly sensitive manner.

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